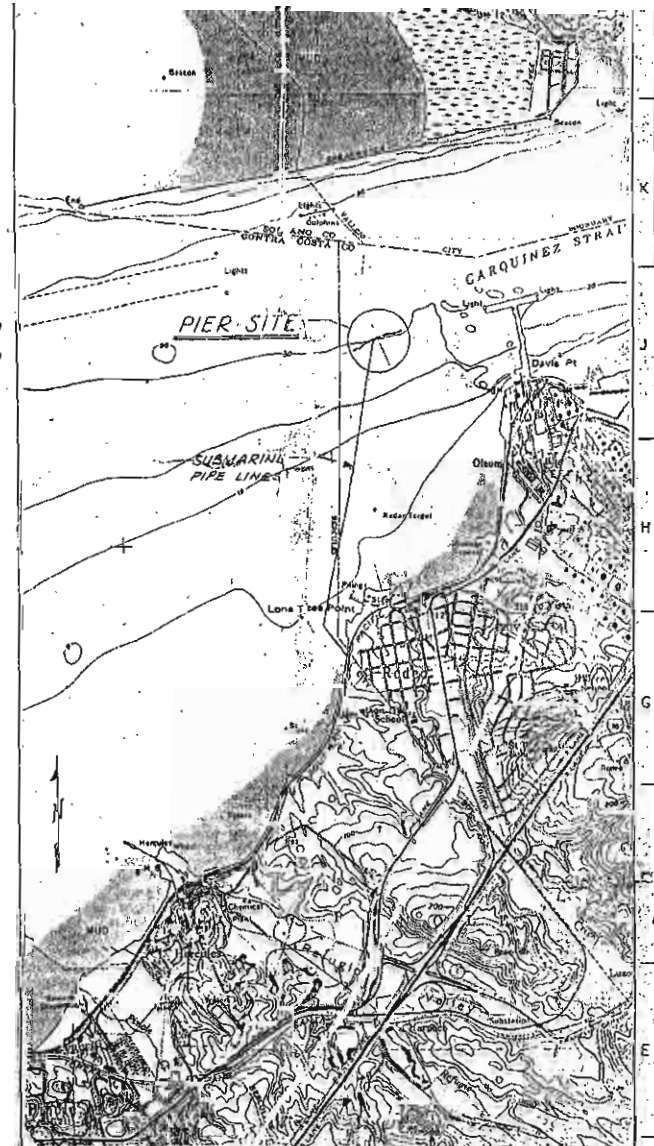
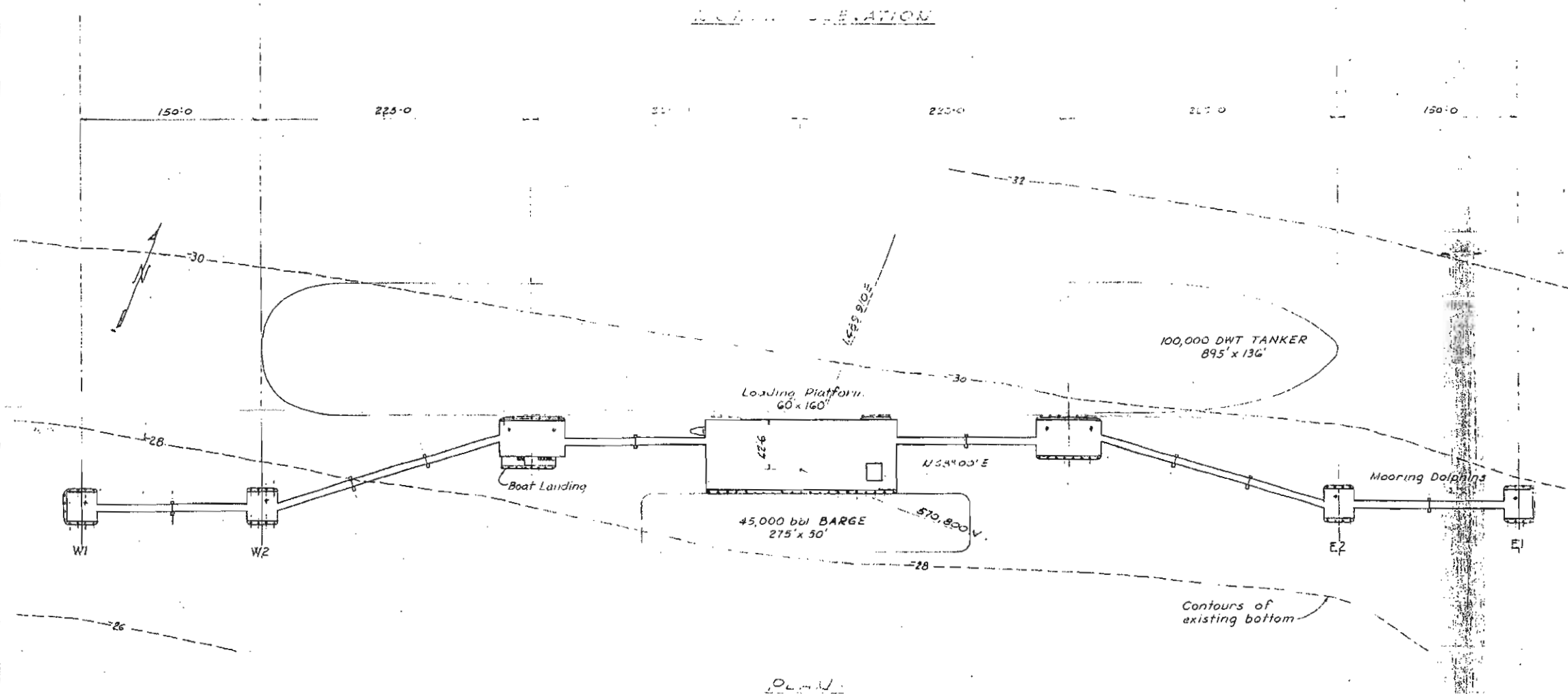


APPENDIX B
MARINE TERMINAL PLANS



LOCATION PLAN 1"=2000'

NOTES

- Elevation datum is mean lower low water 0.0 feet.
- Coordinates are based on California Coordinate System Zone 3 (Lambert Conformal).
- Detail and Section Marks: The letter designates the section and the number indicates the sheet on which the section is shown.
- Design Loads:
 Deck live load: 600 pounds per square foot
 Wind velocity: 65 mph
 Current velocity: 4 mph
 Seismic coefficient: 0.1 g
 Impact load on Dragging Dolphin: 420,000 pounds
 Impact load on Loading Platform: 250,000 pounds each end
 Line pull on mooring hardware:
 Hooks: 320,000 pounds
 Posts: 200,000 pounds
 Bills: 150,000 pounds
 Cleets 42": 100,000 pounds
- Concrete strength: Poured in place concrete f'c = 3,500 psi at 28 days

This drawing approved for construction

EARL AND WRIGHT CONSULTING ENGINEERS
49 FREMONT STREET - SAN FRANCISCO 5, CALIFORNIA

THE FLUOR CORPORATION LTD.
ENGINEERS AND CONSTRUCTORS
LOS ANGELES CALIFORNIA

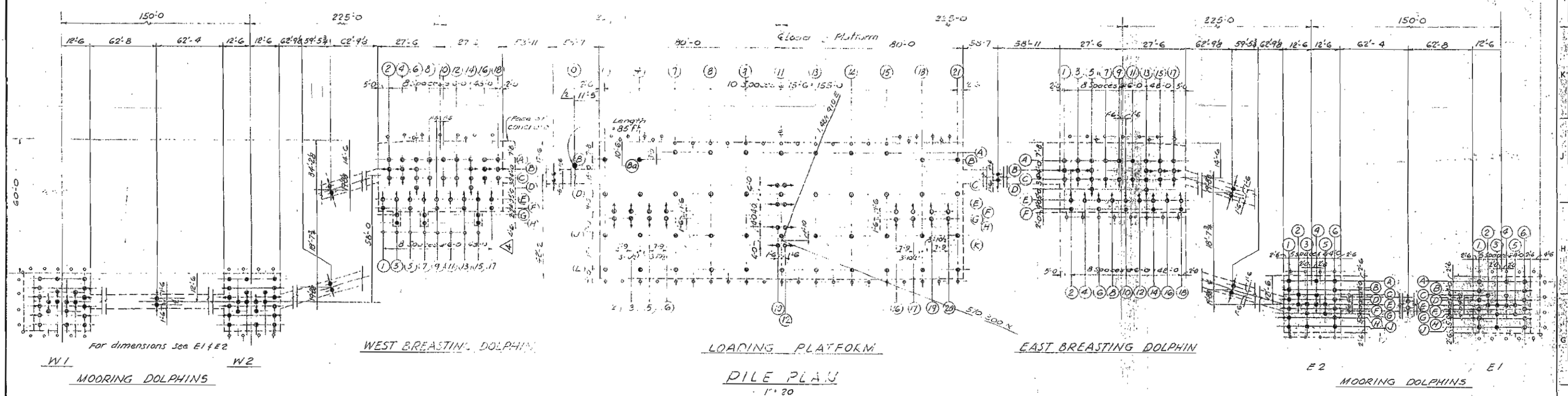
GENERAL PLAN			
MARINE LOADING FACILITIES			
SEQUOIA REFINING CORP. - HERCULES REFINERY - HERCULES, CALIFORNIA			
DESIGNED BY	CK	WRS	APPROVAL
BY	RRK	1-50-0	DATE
			17 Jan 66
			JOB NO.
			4218
			REV.
			4-9850
			2



REVISIONS	DATE	BY	CHK	APP.	NUMBER	REFERENCE DRAWINGS
1	1/17/65					Drawing Checked
2	3/31/66					Revision added by E&W

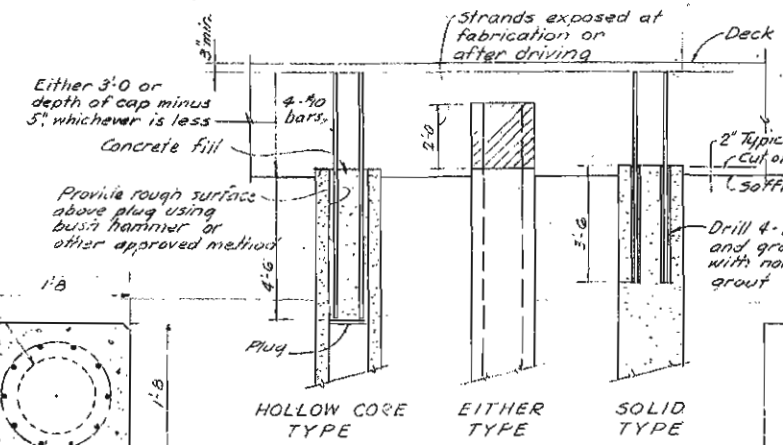
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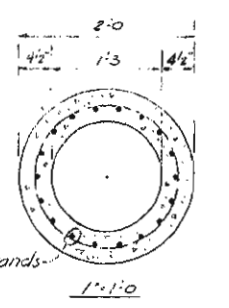
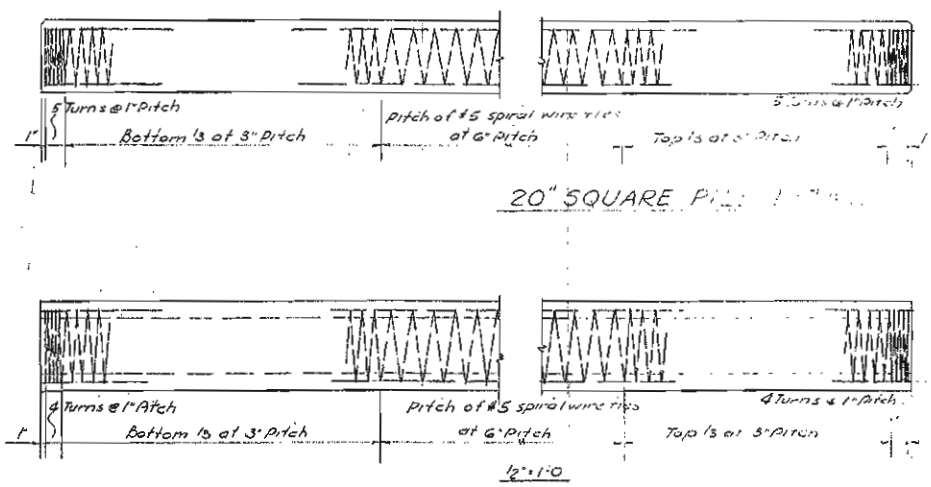


SCHEDULE OF PILE LENGTHS FROM TIP TO CUTOFF, FT.

Concrete Piles	
At walkways & boat landing caps	85'
All others, vertical	123'
All others, battered	130'
Timber Piles	
Wale support	80'
Fender	15'



- PILE LEGEND
- Concrete bearing piles
 - Concrete batter piles
 - Walkway piles 3:12 batter
 - All others 4:12 batter
 - Timber fender piles



DESIGN LOAD 80 Tons compression
60 Tons uplift

CONCRETE $f_c = 6000$ psi @ 28 days
 $f_{ct} = 3500$ psi @ transfer

PRESTRESSING FORCE for 24" 210,000 lb. (after losses)
for 20" solid 306,000 lb. "
for 20" H.C. 235,000 lb. "

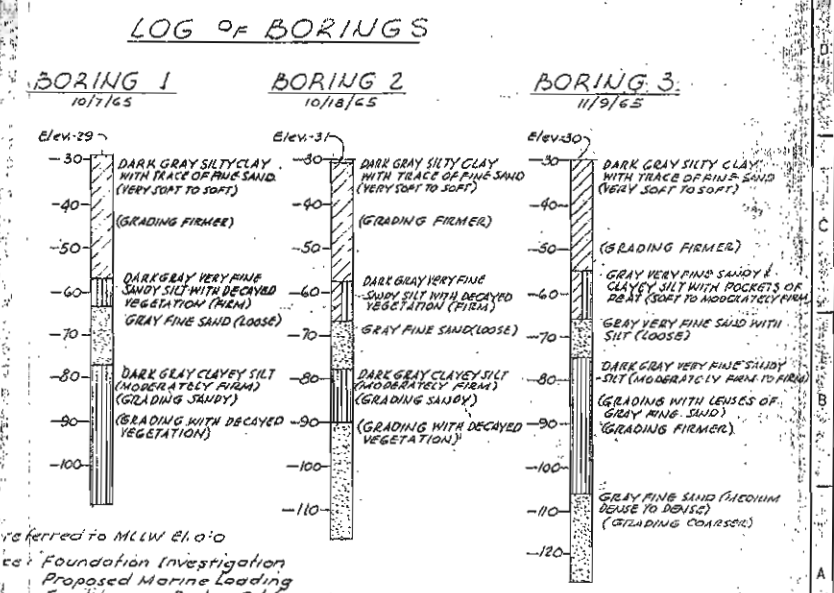
CONTRACTOR'S OPTION

One of the above type piles shall be used, the type selected being at the option of the Contractor.

LATTER PILE CUT-OFF

No scale

This drawing approved for construction



NO.	DATE	REVISIONS	DR.	CHECK	APP.	NO.	DATE	REVISIONS	DR.	CHECK	APP.	NUMBER	REFERENCE DRAWINGS	NOTES
1	1-17-66	Drawing checked				2	3-31-66	Revision added by E.W.						
3	5-23-66	Revision by E.W.												

NOTES

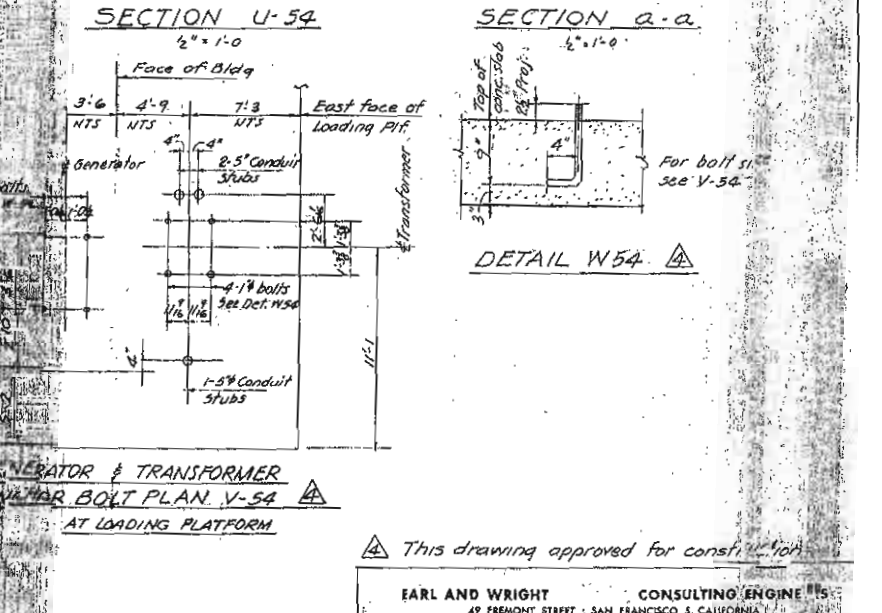
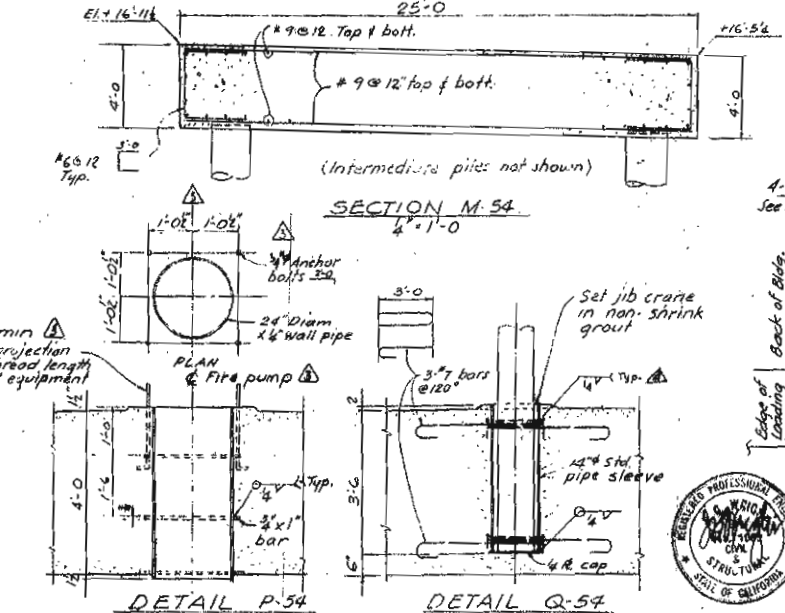
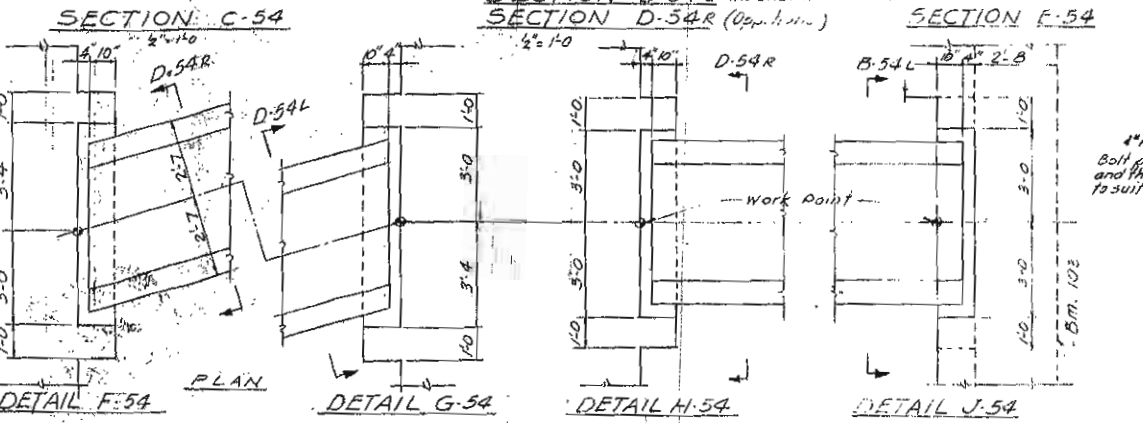
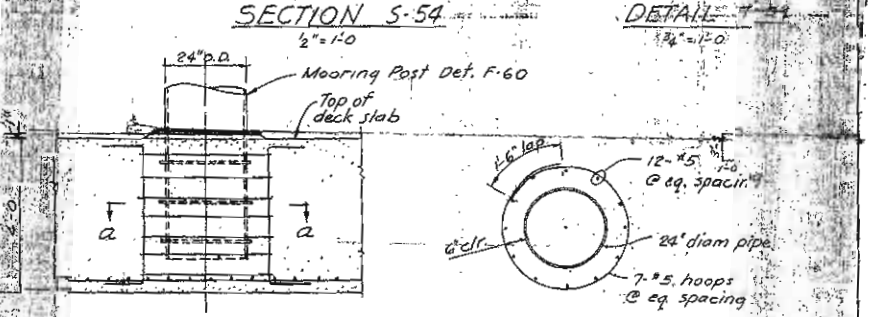
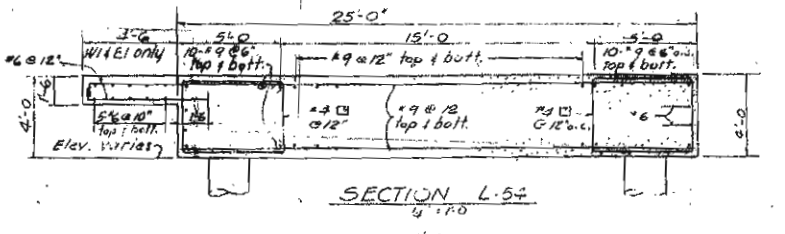
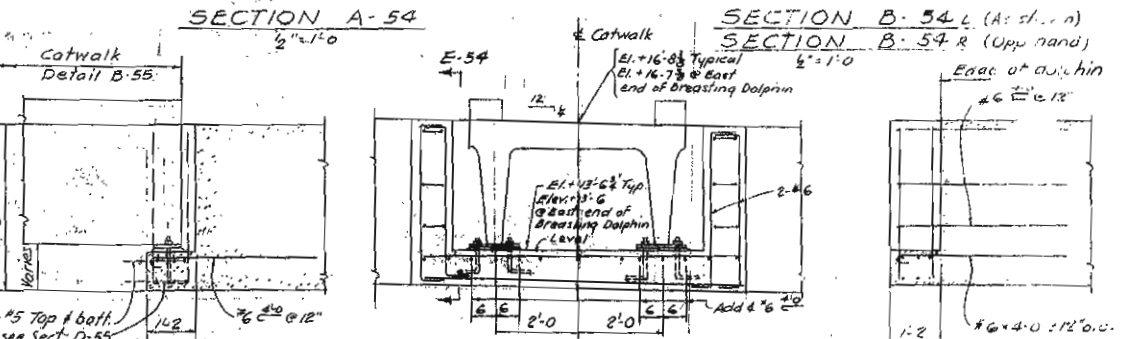
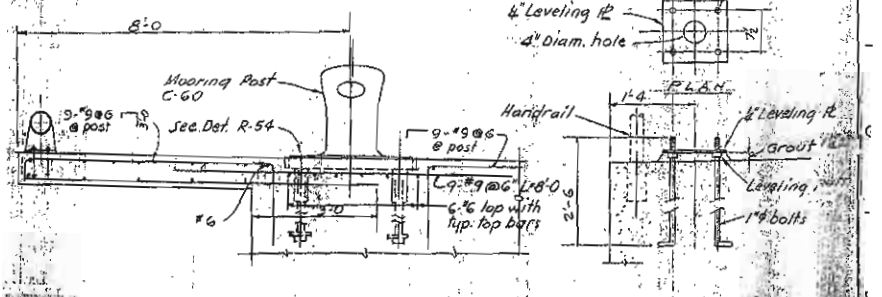
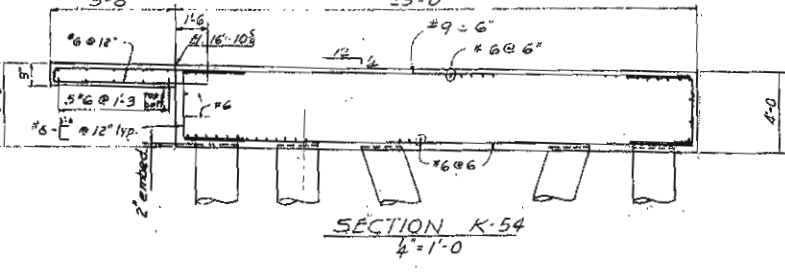
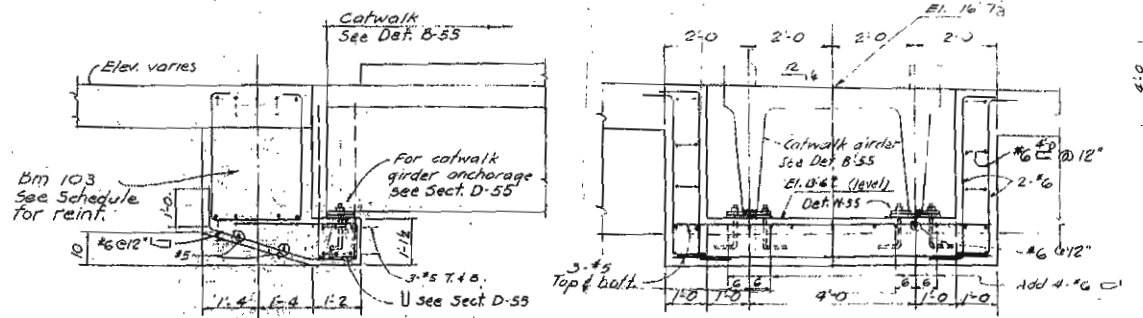
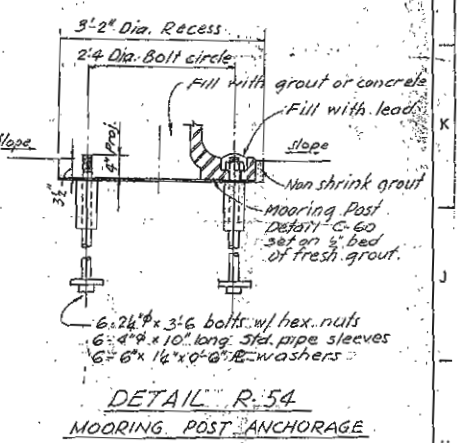
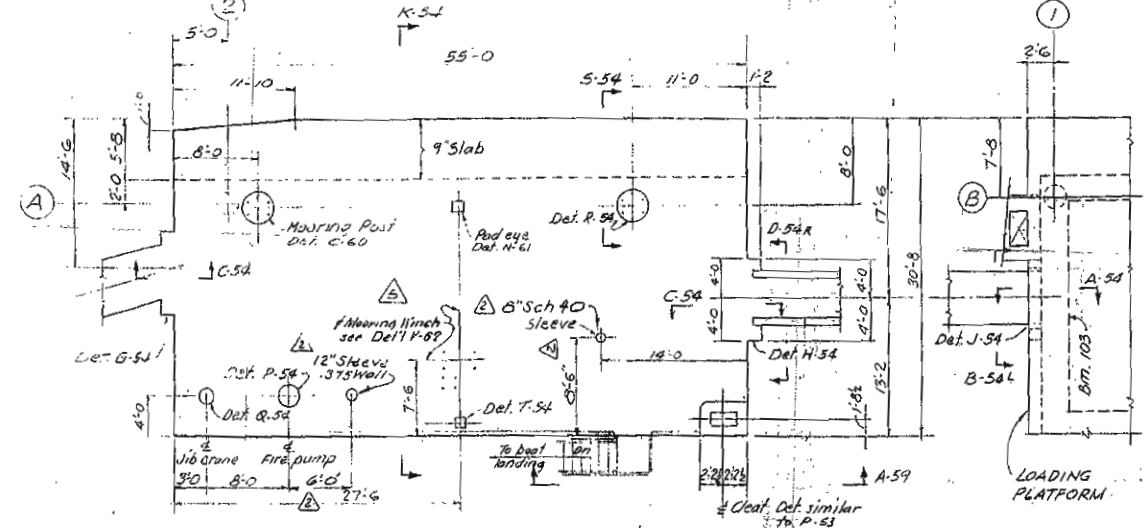
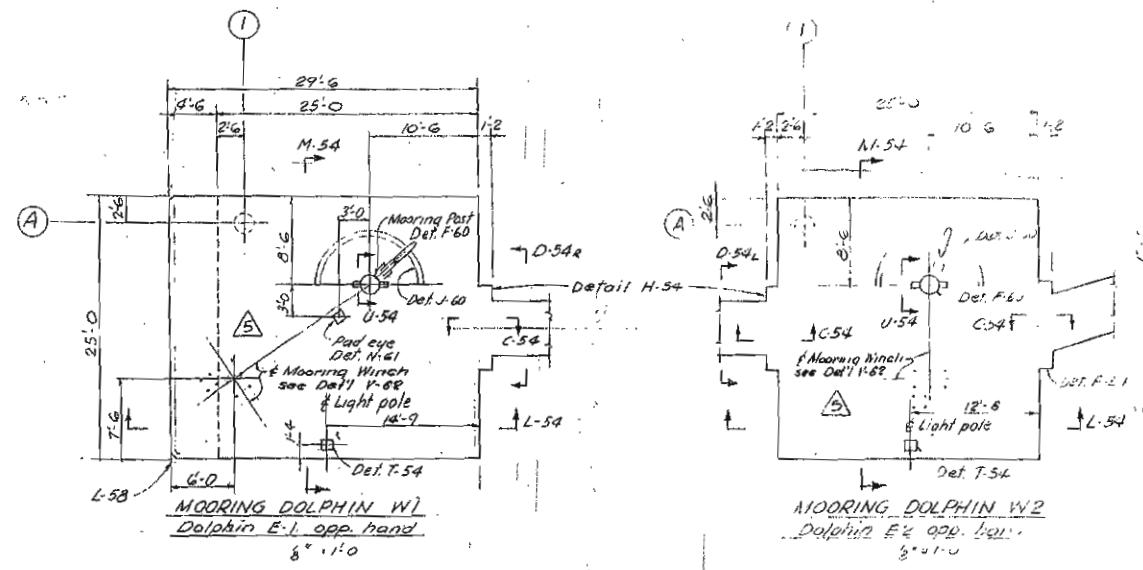
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THE FLUOR CORPORATION LTD.
ENGINEERS AND CONSTRUCTORS
LOS ANGELES, CALIFORNIA

PILE PLAN
MARINE LOADING FACILITIES
SEQUOIA REFINING CORP. - HERCULES REFINERY - HERCULES, CALIFORNIA

DESIGNED BY R.K.H.
CHECKED BY W.R.S.
APPROVED BY J.H.D.
DATE 1/20/66
JOB NO. 4218
DWG. NO. 4-9251



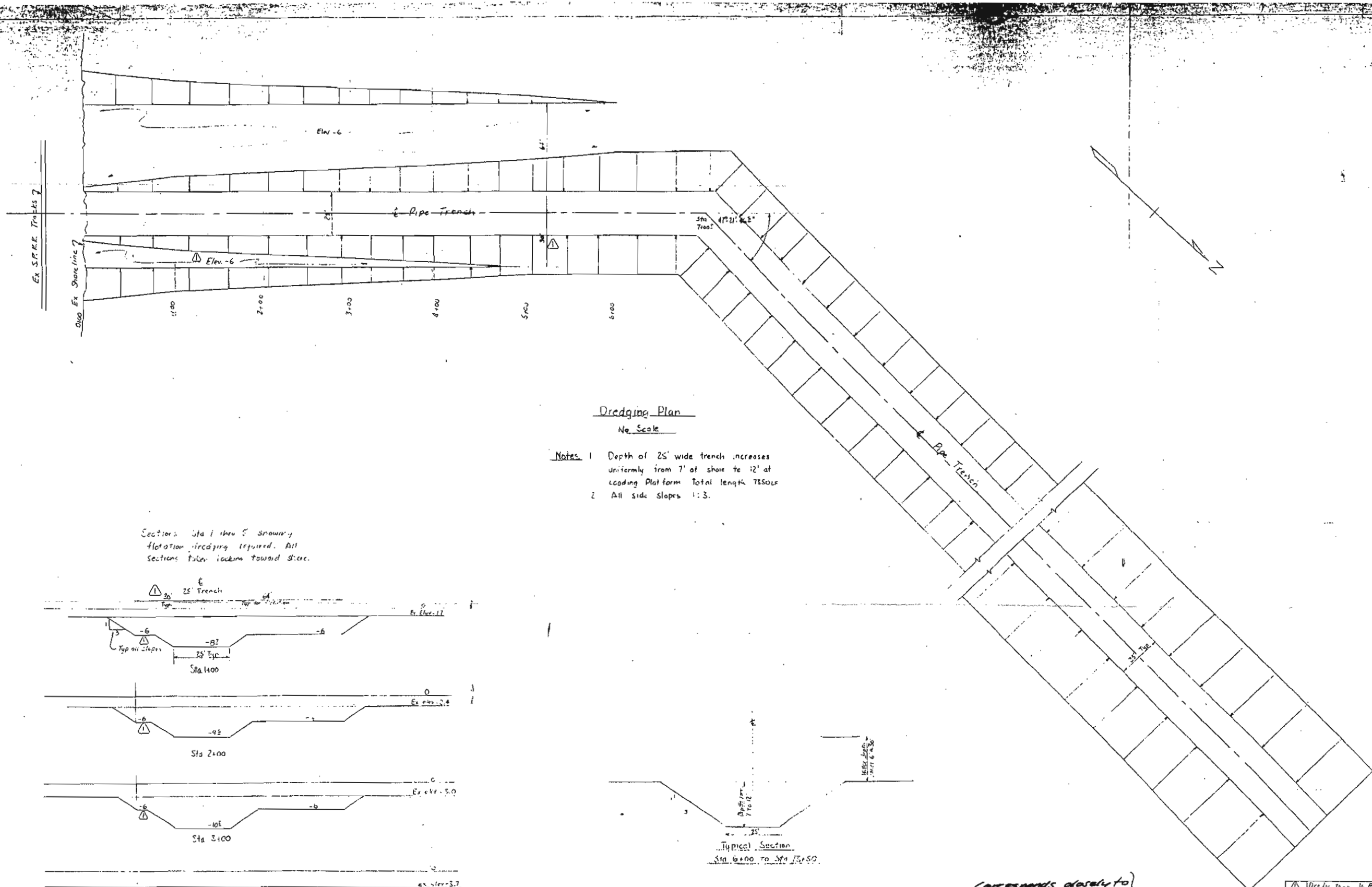
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1	11/1/66	Drawings Checked				1	11/1/66	Drawings Checked				1	11/1/66	Drawings Checked			
2	3-23-66	Revisions Added				2	3-23-66	Revisions Added				2	3-23-66	Revisions Added			
3	3-31-66	Revisions Added				3	3-31-66	Revisions Added				3	3-31-66	Revisions Added			
4	7-19-66	Revisions Added				4	7-19-66	Revisions Added				4	7-19-66	Revisions Added			

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ENGINEERS AND CONSTRUCTORS
40 FRENCH STREET - SAN FRANCISCO 5, CALIFORNIA

EARL AND WRIGHT CONSULTING ENGINEERS
40 FRENCH STREET - SAN FRANCISCO 5, CALIFORNIA

SEQUOIA REFINING CORP.
HERCULES REFINERY
HERCULES, CALIF.

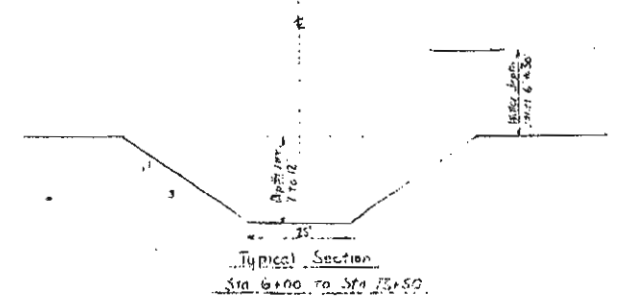
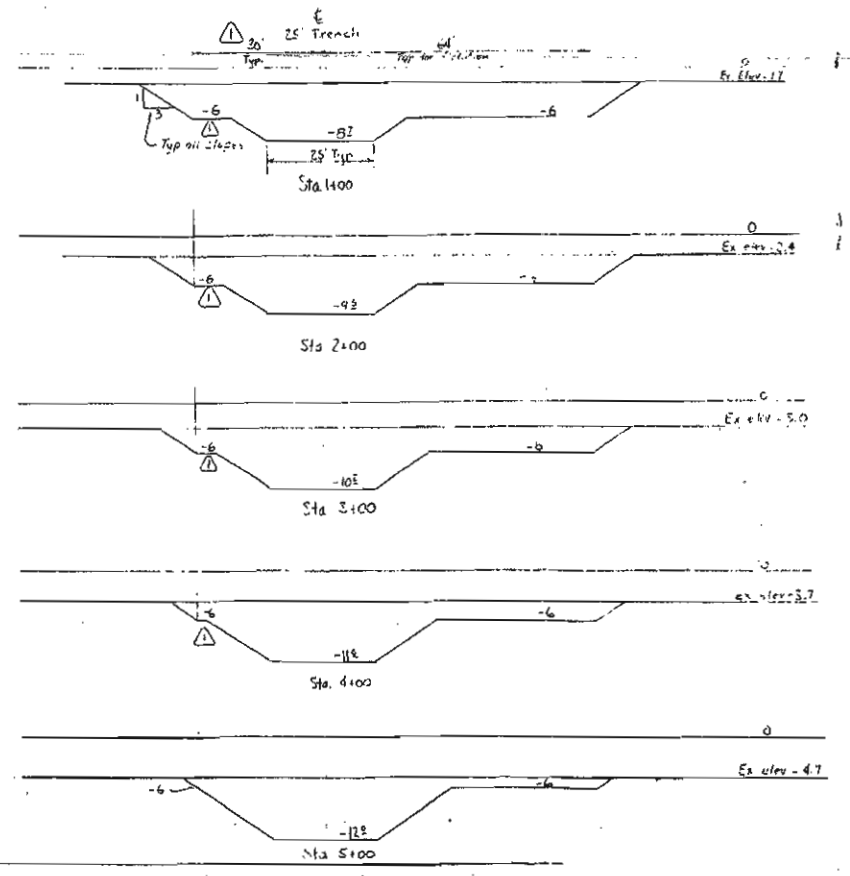
DETAIL W-54
2'-11"0



Dredging Plan
No Scale

- Notes:
- 1 Depth of 25' wide trench increases uniformly from 7' at shore to 12' at Loading Platform Total length 7350'.
 - 2 All side slopes 1:3.

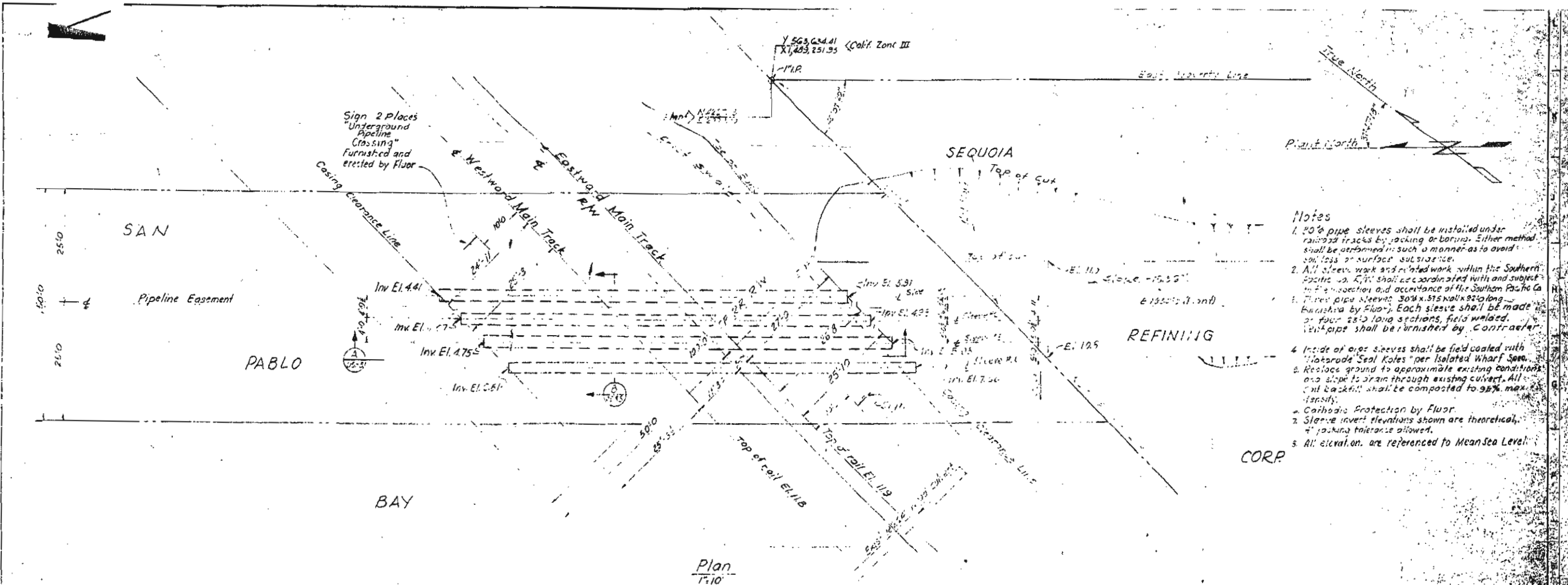
Sections Sta 1 thru 5 showing flotation dredging required. All sections taken looking toward shore.



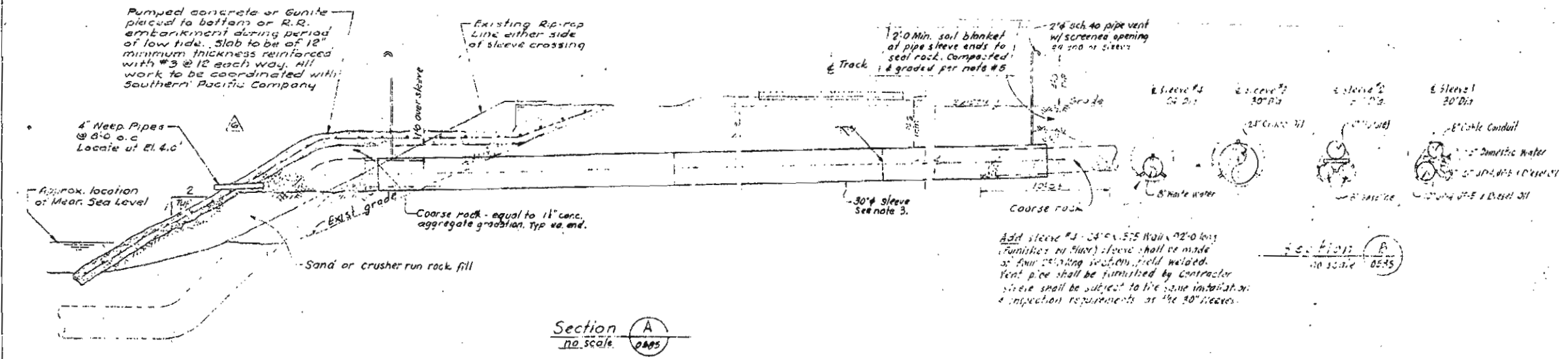
Vertical Scale 1" = 10'
Horizontal Scale 1" = 100'

Corresponds closely to H.P. on DWG 525

Dredging Plan		3/2/66	
No.	Revision	Date	
THE DUNCANSON-HARRISON CO. STEAM DREDGING DIV., - RICHMOND, CALIF.			
SEQUOIA REFINING CORP. MARINE LOADING FACILITIES, HERCULES REFINERY			
DREDGING PLAN			
JOB NO. 1670	DWG. NO. 4-05916	DATE MAR 2, 1966	SCALE 5/32"



- Notes**
1. 20" pipe sleeves shall be installed under railroad tracks by jacking or boring. Either method shall be performed in such a manner as to avoid soil loss or surface subsidence.
 2. All sleeve work and related work within the Southern Pacific Co. R.R. shall be coordinated with and subject to the inspection and acceptance of the Southern Pacific Co.
 3. Three pipe sleeves, 30"x31.5" wall x 82' long, furnished by Fluor. Each sleeve shall be made of four 25' long sections, field welded. Vent pipe shall be furnished by Contractor.
 4. Inside of pipe sleeves shall be field coated with "Waterproof Seal Kote" per Isolated Wharf Spec.
 5. Restore ground to approximate existing conditions and slope to drain through existing culvert. All cut backfill shall be compacted to 95% max. density.
 6. Cathodic Protection by Fluor.
 7. Sleeve invert elevations shown are theoretical.
 8. Jacking tolerance allowed.
 9. All elevation are referenced to Mean Sea Level.



REVISIONS				REVISIONS				REVISIONS				REVISIONS			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	4-27-66	REVISIONS CORRECTED TO AS BUILT CONDITIONS	FLUOR	2	5-10-66	REVISIONS CORRECTED TO AS BUILT CONDITIONS	FLUOR	3	5-10-66	REVISIONS CORRECTED TO AS BUILT CONDITIONS	FLUOR	4	5-10-66	REVISIONS CORRECTED TO AS BUILT CONDITIONS	FLUOR
5	5-21-66	Revised bank protection - section	FLUOR	6	5-21-66	Revised bank protection - section	FLUOR	7	5-21-66	Revised bank protection - section	FLUOR	8	5-21-66	Revised bank protection - section	FLUOR

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NO.	DATE	NO.	DATE	NO.	DATE
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4	5-21-66	5	5-21-66	6	5-21-66
7	5-21-66	8	5-21-66	9	5-21-66

